Small Animal Science/Ag Processing

Course Description:

- Suggested grade level: 10^{th} – 12^{th}
- Pre-requisite: None
- Text: *Small Animal Care and Management, 2nd Ed*; Delmar Learning; various resources
- Available Credit: ½ credit
- This course will discuss the origin, handling, processing, grading and marketing of meat, eggs, and dairy products. In-class activities will include meat and cheese tasting, and making ice cream. Companion animal care, animal welfare and animal rights will also be covered.

Core Technical Standards and Examples (Companion Animals)

Indicator #1: Apply knowledge of anatomy and physiology to produce and/or manage animals in a domesticated or natural environment.			
Bloom's Taxonomy Level	**Standard**	**Supporting Concepts/Skills**	**Assessment and Resources**
Application	CA 1.1 Use classification systems to explain basic functions of animal anatomy and physiology.	• Categorize types of companion animals • Identify classifications of companion animals (cats, dogs, rabbits, birds, fish, rodents, etc • Identify exotic animals	• Introduction to Small Animals Lesson • Alternative Animals Unit

Indicator #2: Develop a safety plan for working with a specific animal.			
Bloom's Taxonomy Level	**Standard**	**Supporting Concepts/Skills**	**Assessment and Resources**
Comprehension	CA 2.1 Recognize animal behaviors to facilitate working with animals safely.	• Perform safe handling procedures when working with animals. • Demonstrate knowledge of normal animal stage behavior. • Restrain and control animals	• Care, Handling, and Behavior Lesson in Dog Unit • Nutrition and Care Lesson in Cat Unit • Care and Handling Lesson in Rabbit Unit

Indicator #3: Provide proper nutrition to maintain animal performance.			
Bloom's Taxonomy Level	**Standard**	**Supporting Concepts/Skills**	**Assessment and Resources**
Analysis	CA 3.1 Examine animal developmental stages to comprehend why nutrient requirements are different throughout an animal's life cycle.	• Recognize the different phases of an animal's life cycle • Select diets which provide the appropriate quantity of nutrients for each animal developmental	• Nutrition Lesson in Dog Unit • Nutrition and Care Lesson in Cat Unit • Feeding and Nutrition Lesson in Rabbit Unit
Analysis	CA 3.2 Analyze a feed ration to determine whether or not it fulfills a given animal's nutrient requirements.	• Identify the differences between good and poor feedstuffs • Create a balanced ration for a given animal	• Nutrition Lesson in Dog Unit • Nutrition and Care Lesson in Cat Unit • Feeding and Nutrition Lesson in Rabbit Unit

Indicator #4: Know the factors that influence an animal's biology and anatomy.			
Bloom's Taxonomy Level	**Standard**	**Supporting Concepts/Skills**	**Assessment and Resources**
Analysis	CA 4.1 Analyze elements in the reproductive cycle to explain differences between male and female reproductive systems.	• Identify the parts of male and female reproductive tracts on example animals • Analyze the reproductive cycle of a given animal. • Evaluate animal readiness for breeding	• Health and Reproduction Lesson in Dog, Cat and Rabbit Units
Analysis	CA 4.2 Discuss reproductive cycles to show how they differ from species to species.	• Discuss the pros and cons of breeding through natural cover and artificial insemination. • Identify spay and neutering an animal • Identify reproduction management practices (e.g., male to female ratios, age and weight for breeding, fertility and soundness for breeding, heat synchronization, flushing*).*	• Health and Reproduction Lesson in Dog, Cat and Rabbit Units

Indicator #5: Identify factors that constitute caring for a companion animal.			
Bloom's Taxonomy Level	**Standard**	**Supporting Concepts/Skills**	**Assessment and Resources**
Comprehension	CA 5.1 Recognize optimum performance for a given animal species.	• Identify proper kennel, hutch or facility for a given animal • Identify reasons why some animals perform better than others	• Housing and Equipment Lesson in Dog, Cat, and Rabbit Units
Synthesis	CA 5.2 Create a program to develop an animal to its highest potential.	• Identify proper wash, dry and grooming of animal • Properly fit collars, halters, and restraining tack • Practice preventative medicine (vaccines, wormers, etc.) • Apply first aid to an animal • Identify the role of humane societies • Describe breed associations and professional societies • Identify diseases and parasites and control-prevention methods	• Care, Handling, and Behavior Lesson in Dog Unit • Nutrition and Care Lesson in Cat Unit • Care and Handling Lesson in Rabbit Unit • Health and Reproduction Lesson in Dog, Cat and Rabbit Units • Breeds Lesson in Dog, Cat and Rabbit Units

Core Technical Standards and Examples (Ag Processing)

Indicator #1: Identify processing, handling, and storage factors to show how they impact product quality and safety.			
Bloom's Taxonomy Level	**Standard**	**Supporting Concepts/Skills**	**Assessment and Resources**
Synthesis	FP 1.1 Develop a "quality factors program" to comply with local, national, governmental, and international standards.	• Perform and interpret quality check of food products per industry standards. • Explain methods of food storage to assure product quality. • Interpret and follow industry/government standards.	• Fluid Milk Lesson in Dairy Foods Unit • Milk Evaluation Lesson in Dairy Foods Unit • Cheese Manufature Lesson in Dairy Foods Unit • Ice Cream Manufacture Lesson in Dairy Foods Unit • Yogurt Lesson in Dairy Foods Unit • Butter Manufacture Lesson in Dairy Foods Unit • Meats Unit

Indicator #2: Identify processing inspection and laws pertaining to humane slaughter.			
Bloom's Taxonomy Level	**Standard**	**Supporting Concepts/Skills**	**Assessment and Resources**
Synthesis	FP2.1 Develop slaughter/inspection techniques to process food.	• Demonstrate approved techniques for preparing ready-to-eat food products. • Compare and contrast slaughter techniques. • Outline federal-state inspection and health regulations. • Examine trends in consumer buying habits. • Utilize Hazard Access Critical Control Points (HACCP).	• Meats Unit • Dairy Foods Marketing Lesson in Dairy Foods Unit

Indicator #3: Processing of other agriculture products in today's global economy.			
Bloom's Taxonomy Level	**Standard**	**Supporting Concepts/Skills**	**Assessment and Resources**
Synthesis	FP 3.1 Develop techniques to process food products.	• Conduct pre-mortem and post-mortem inspections. • Select raw materials for processing. • Process meat and poultry products. • Process dairy products.	• Cheese Lab in Dairy Foods Unit • Ice Cream Lab in Dairy Foods Unit • Butter Lab in Dairy Foods Unit • Meats Unit

Indicator #4: Packaging and preservation of food items.			
Bloom's Taxonomy Level	**Standard**	**Supporting Concepts/Skills**	**Assessment and Resources**
Synthesis	FP 4.1 Develop techniques to package and preserve food products.	• Utilize best practices for packaging, labeling, and consumer safety. • Design of packaging and consumer confidence.	• Dairy Foods Marketing Lesson in Dairy Foods Unit